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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KUMAR, PANKAJ

ART UNIT PAPER NUMBER

2631

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/439,608

Applicant(s)

LENNEN, GARY

Examiner

Pankaj Kumar

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/20/2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-16 is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/16/2002 have been fully considered but they are not persuasive for claims 1-6.
2. For the new W-code limitation added to claims 1, 4, 5 and 6:
3. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed (in this case using W-code rather than estimate) does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).
4. Lacking any criticality, changing the form or shape of prior art parts (in this case, changing the estimate signal to W-code signal) does not make the claimed invention patentable over that prior art (*In re Dailey*, 149 USPQ 47).
5. Claims 7 to 16 are allowed. See prior action for details.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Counselman.
8. As per claim 1, an apparatus for tracking signals (Counselman fig. 7) comprising: a first tracker (Counselman fig. 7: 230) for tracking a first component (Counselman fig. 11: 874) of a first signal (Counselman fig. 7: 194) and for generating a first W-code signal (Counselman does

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not have W-code. What Counselman does have is an estimate with fig. 7: 228; "One bit C/A code local model 228 is a sequence of bit values representing the C/A code specific to GPS satellite 12. This sequence is output from C/A code generator 230 at times in accordance with the estimated arrival time of the C/A sequence from the GPS satellite to which C/A code generator 230 has been assigned by satellite assignment 41 from real time computer 40."; It would have been obvious to one skilled in the art at the time of the invention to modify Counselman to have W-code instead of estimate since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed (in this case using W-code rather than estimate) does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Also, lacking any criticality, changing the form or shape of prior art parts (in this case, changing the estimate signal to W-code signal) does not make the claimed invention patentable over that prior art (*In re Dailey*, 149 USPQ 47.) from a second component (Counselman fig. 11: 460 is derived from 194 and thus it is a component of 194) of the first signal (Counselman fig. 11: 194); a second tracker (Counselman fig. 10: 412) for tracking a first component (Counselman fig. 10: 222) of a second signal (Counselman fig. 10: from 220) according to the first estimate signal (Counselman fig. 10: 228 is the first estimate signal which is used in combination with other signals derived from 222 to determine input into 412); and the second component (Counselman fig. 11: 460) of the first signal has the same pattern (same pattern being that both inputs into the comparator are sinusoids) as the first component (Counselman fig. 10: 222) of the second signal.

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9. As per claim 2, an apparatus according to claim 1, wherein the pattern comprises: a known pattern (Counselman fig. 11: 458) combined with an unknown pattern (Counselman fig. 11: 194).

10. As per claim 3, an apparatus according to claim 2, wherein timing information about the unknown pattern is known (Counselman fig. 11: 456 is t from 36 which effectively clocks 194).

11. As per claim 4, an apparatus according to claim 3, wherein: the first tracker (Counselman fig. 7: 230) generates a timing signal (Counselman "This sequence is output from C/A code generator 230 at times in accordance with the estimated arrival time of the C/A sequence from the GPS") in accordance with the timing information (Counselman fig. 11: 456: t from 36) for improving the accuracy of the first W-code signal (discussed in the discussion of claim 1).

12. As per claim 5, an apparatus according to claim 2, wherein: the first tracker (Counselman fig. 7: 230) generates a first local component signal (Counselman fig. 11: 460) in accordance with the known pattern (Counselman fig. 7: 458) and combines the local component signal (Counselman fig. 11: 460) with a version of the first signal (Counselman fig. 7: 194) to generate the first W-code signal (discussed in the discussion of claim 1).

13. As per claim 6, an apparatus according to claim 2, wherein: the second tracker (Counselman fig. 10: 412) generates a second local component signal (Counselman fig. 10: 414) in accordance with the known pattern (Counselman fig. 11: 458 is the known pattern which is supplied to fig. 10 in order to generate 414) and combines the second local component signal (Counselman fig. 10: 414) with at least one version of the second signal (Counselman fig. 10: from 220 whose version is in 418 which is combined with 414 for 200) to generate at least one second W-code signal (discussed in the discussion of claim 1).

Allowable Subject Matter

14. Claims 7-16 are allowed.
15. The following is an examiner's statement of reasons for allowance: See prior action.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Monday through Thursday after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (703) 305-4378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

PK
March 5, 2003

TESFAL/ET-3000/2
PRIMARY EXAMINER

